Patent Application No. 10/743,732
of Stephen CARLEY

AMENDMENTS TO THE CLAIMS

Please cancel claims 26 and 27 without prejudice or disclaimer of
their subject matter and amend the claims as follows:

1. (Currently Amended) A system for analyzing the performance of a
network comprising:

at least one data collection agent (DCA) located on a network and which
collects performance data including at least a first set of measurements of a single
network parameter and at least a second set of measurements including at least a
single measurement of the single network parameter, each measurement of the at
least a first set of measurements taken at a different time;

a processing module interconnected with the at least one DCA and which
calculates at least (a) a first variance statistic and (b) a second variance statistic,
the first variance statistic being a variance statistic of the at least a first set of
measurements and the second variance statistic being a variance statistic of the at
least a second set of measurements; and

a comparison module interconnected with the processing module and which
compares the first variance statistic with at least the second variance statistic to
determine if a predetermined relationship exists between the first variance statistic
and the second variance statistic, wherein

the processing module is further programmed to alert a user about a
potential network performance problem based, at least in part, on whether the
predetermined relationship is determined to exist between the first and second
variance statistics.

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    2. (Currently Amended) The system of claim 1 wherein each measurement of the at least a first set of measurements is taken on a periodic basis over a first period of time and each of the at least a second set of measurements is taken over a second period of time.

    3. (Original) The system of claim 2 wherein the second period of time is included within the first period of time.

    4. (Currently Amended) The system of claim 2 further including a data storage module interconnected to the at least one DCA and the processing module for storing at least the at least a first set of measurements and the at least a second first set of measurements and wherein the second period of time is not included within the first period of time.

    5-8. (canceled)

    9.   (Original) The system of claim 1 including a user display for displaying at least the first variance statistic and the second variance statistic.

    10. (Previously presented) A method of analyzing the performance of a network including:

    collecting performance data including a first set of measurements of a single network parameter, each measurement of the first set of measurements taken at a different time;

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collecting at least a second set of measurements including at least a single measurement of the single network parameter;

calculating a first variance statistic associated with the first set of measurements;

calculating at least a second variance statistic associated with the at least a second set of measurements;

comparing the first variance statistic with at least the second variance statistic to determine if a predetermined relationship exists therebetween; and

alerting a user about potential network performance problems based, at least in part, on whether the predetermined relationship is determined to exist between the first and second variance statistics.

11. (Currently Amended) The method of claim 10 wherein:

the collecting of the first set of measurements includes taking each measurement of the first set of measurements on a periodic basis over a first period of time; and

the collecting of the second set of measurements includes taking each measurement of the at least a first second set of measurements over a second period of time.

12. (Previously presented) The method of claim 10 wherein a second period of time is included within a first period of time.

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13. (Currently Amended) The method of claim 10 further including storing at least the first set of measurements and the at least a second set of measurements in a data storage facility.

14. (Previously presented) The method of claim 13 wherein a second period of time is not included within a first period of time.

15-17 (canceled)

18. (Currently Amended) The method of claim 10 wherein:

the calculating of the first variance statistic includes calculating an average value equal to the average value of the at least a first set of measurements; and

the calculating of the second variance statistic includes calculating an average value equal to the average value of the at least a second set of measurements.

19. (Currently Amended) The method of claim 10 further including displaying at least the first variance statistic, the at least a second variance statistic and the results of the comparison therebetween on a user display.

20. (Currently Amended) A method of analyzing the performance of a network including:

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collecting performance data including a first set of measurements of a single network parameter, each of the first set of measurements taken at a different time;

collecting at least a second set of measurements including at least a single measurement of the single network parameter;

calculating a first variance statistic associated with the first set of measurements;

calculating at least a second variance statistic associated with the at least a second set of measurements;

determining whether a potential problem exists with the network's performance based, at least in part, on a comparison of the first variance statistic and the at least a second variance statistic statistics; and

generating an alarm when it is determined that a problem exists with the network's performance.

21. (Currently Amended) A system for analyzing the performance of a network comprising:

at least one data collection agent (DCA) located on a network and which collects performance data including a first set of measurements of a single network parameter and at least a second set of measurements including at least a single measurement of the single network parameter, each measurement of the first set of measurements taken at a different time;

a processing module interconnected with the DCA and which calculates at least a first variance statistic and a second variance statistic, the at least a first variance statistic being a variance statistic of the first set of measurements and the

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second variance statistic being a variance statistic of the <u>at least a</u> second set of measurements; wherein

the ~~processor~~ <u>processing module</u> is further programmed <u>(A)</u> to determine whether a potential problem exists with the network's performance based, at least in part, on a comparison of the <u>at least a</u> first <u>variance statistic</u> and <u>the at least a</u> second variance <u>statistic</u> ~~statistics~~; and <u>(B)</u> to

generate an alarm when it is determined that a problem exists with the network's performance.

22. (Previously presented) A system as in claim 1 further comprising a mechanism constructed and adapted to notify the user by one or more of the following: (a) sending an e-mail to the user; (b) sending a fax to the user; and (c) initiating a phone call to the user.

23. (Previously presented) A system as in claim 1 wherein the user is alerted by a message to at least one of a PDA and a cellular telephone.

24. (Previously presented) A method as in claim 10 wherein the alerting of the user comprises:

notifying the user by one or more of the following: (a) sending an e-mail to the user; (b) sending a fax to the user; and (c) initiating a phone call to the user.

25. (Previously presented) A method as in claim 10 wherein the user is alerted by a message to at least one of a PDA and a cellular telephone.

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26-27. (Canceled)

28. (Currently Amended) The system of claim 2 wherein: the processing module also calculates the standard deviation of the at least a first set of measurements; and the comparison module determines if the value of the second variance statistic is within a predetermined multiple of the standard deviation of the value of the first variance statistic.

29. (Previously presented) The system of claim 28 wherein the comparison module determines if the value of the second variance statistic is more than one standard deviation from the value of the first variance statistic.

30. (Previously presented) The system of claim 28 wherein the comparison module determines if the value of the second variance statistic is within one of either a first range and a second range of the value of the first variance statistic, the first range defined by the values greater than one but less than or equal to two standard deviations from the value of the first variance statistic and the second range defined by the values greater than two standard deviations from the value of the first variance statistic.

31. (Currently Amended) The method of claim 24 wherein the first variance statistic includes an average value.

32. (Currently Amended) The method of claim 10 further including calculating the standard deviation of the first set of measurements and wherein the

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comparing of the first variance statistic to the <u>at least a</u> second variance statistic
includes determining if the value of the <u>at least a</u> second variance statistic is within
a predetermined multiple of the value of the standard deviation of the value of the
first variance statistic.

33. (Currently Amended) The system of claim 28 wherein the comparing of
the first variance statistic to the <u>at least a</u> second variance statistic includes
determining if the <u>at least a</u> second variance statistic is more than one standard
deviation from the first variance statistic.

34. (Currently Amended) The system of claim 29 wherein the comparing of
the first variance statistic to the <u>at least a</u> second variance statistic includes
determining if the value of the <u>at least a</u> second variance statistic is within one of
either a first range and a second range, the first range defined by the values greater
than one but less than or equal to two standard deviations from the value of the
first variance statistic and the second range defined by the values greater than two
standard deviations from the value of the first variance statistic.

35. (Previously presented) A system as in claim 1 wherein the network
parameter is selected from the group consisting of: end-to-end time; throughput,
DNS lookup time; connect time; request time; response time; teardown time;
download time; quantity of data received; packet loss; percent packet loss; packets
received; packets late; packets resend requested; packets recovered; packets
resent; packets received normally; current bandwidth; and clip bandwidth.

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36. (Previously presented) A system as in claim 1 wherein the first and second variance statistics are selected from the group consisting of: mean value, median value, average value, standard deviation, minimum value and maximum value.

Please add the following **new claims 37-38**.

37. (New) A system for analyzing the performance of a network comprising:

(A)   at least one data collection agent (DCA) located on a network and which is constructed and adapted to collect performance data including a first set of measurements of a single network parameter and a second set of measurements including a single measurement of the single network parameter, each measurement of the first set of measurements taken at a different time, wherein the network parameter is selected from the group consisting of: end-to-end time; throughput, DNS lookup time; connect time; request time; response time; teardown time; download time; quantity of data received; packet loss; percent packet loss; packets received; packets late; packets resend requested; packets recovered; packets resent; packets received normally; current bandwidth; and clip bandwidth, wherein each measurement of the first set of measurements is taken on a periodic basis over a first period of time and each of the second set of measurements is taken over a second period of time distinct from the first period of time;

(B)   a processing module interconnected with the at least one DCA and which calculates (a) a first variance statistic and (b) a second variance statistic, the first variance statistic being a variance statistic of the first set of measurements and

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the second variance statistic being a variance statistic of the a second set of
measurements; and

(C)   a comparison module interconnected with the processing module
and which is constructed and adapted to compare the first variance statistic with
the second variance statistic to determine if a predetermined relationship exists
between the first variance statistic and the second variance statistic, wherein

the processing module is further programmed to alert a user about a
potential network performance problem based, at least in part, on whether the
predetermined relationship is determined to exist between the first and second
variance statistics.

38. (New)   A method of analyzing the performance of a network
including:

collecting performance data including a first set of measurements of a
single network parameter, each measurement of the first set of measurements
taken at a different time;

collecting a second set of measurements including a single measurement of
the single network parameter;

calculating a first variance statistic associated with the first set of
measurements;

calculating a second variance statistic associated with the second set of
measurements;

comparing the first variance statistic with at least the second variance
statistic to determine if a predetermined relationship exists therebetween; and

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alerting a user about potential network performance problems based, at least in part, on whether the predetermined relationship is determined to exist between the first and second variance statistics, wherein the user is alerted by one or more of: (a) an e-mail message; (b) a facsimile; (c) a phone call; and (d) message to a PDA; and (e) a message to a cellular telephone,

wherein the collecting of the first set of measurements includes taking each measurement of the first set of measurements on a periodic basis over a first period of time; and the collecting of the second set of measurements includes taking each measurement of the second set of measurements over a second period of time.

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